

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-12, and 14-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 line 3 describes “one or more said laser welding heads”. The word “said” is incorrect.

Claim 1 line 5 describes both “said laser welding head” and “said laser welding heads”, however line 3 only requires one welding head. Clarification is required.

Claim 1 line 6 describes “including a remote laser”. Is this laser the one laser or is it a different laser? Clarification is required.

Claim 1 lines 7 and 8 describe "plurality of axis" and “multiple axis”. The plural term "axis" is misspelled.

Claim 4 line 2, “stationarily” should be –stationary-.

Claim 5 line 2, “nonstationarily” should be –nonstationary-.

Claim 6 line 2 describes “scanner heads”, however the specification does not recite this term, but refers to mirrors.

Claim 8, line 2 describes “said laser welding head”, however claim 1 describes plural welding heads. Further clarification is required.

Claim 9 lines 2 and 3 recite “said common external laser beam source”, “said controllable beam switch”, and “said laser beam guides”, but none of these features have antecedent basis in claim 1.

Claim 10, line 6, “providing the one or more welding heads with a remote laser” is not a clear description because it is not clear how one laser provides for plural welding heads. Clarification is required.

Claim 10 line 7 “moved of during” is not idiomatic language.

Claim 11, line 2, “said multiaxial robots” has no antecedent basis.

Claim 12, last paragraph, “laser beam transmission element” is not a clear description of a device component. This feature could be a space between the source and the head. It is not a clear description of the invention.

Claim 15 line 2, “stationarily” should be –stationary–.

Claim 16 line 2, “nonstationarily” should be –nonstationary–.

Claim 17, “scanner heads” is not a clear description and requires clarification.

Claim 20 “said laser beam transmission element is a plurality of said laser welding heads...” is not a clear description.

All dependent claims contain the unclear descriptions in the respective independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-12, and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,115,115 to Alborante in view of USPN 5,245,155 to Pratt et al in view of USPN 4,578,554 to Coulter.

The substantial limitations of the claims are described by Alborante. Moving means having plural axes, and being guided and moved along a predetermined, programmed, multiple axes movement path is not disclosed.

Pratt et al describe (Abstract) well known movement of either the laser source or the workpiece during laser welding and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because

Coulter describes programmed movement about a plurality of axes.

The use of programmed component moving means would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides rapid efficient processing for a complex workpiece.

Claims 3-5, 11, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,115,115 to Alborante in view of USPN 5,245,155 to Pratt et al in view of USPN 4,578,554 to Coulter as applied to claims 1, 10, and 12 above, and further in view of USPN 4,654,505 to Sciaky et al.

Sciaky et al describe both stationary and nonstationary weld head and the use of either would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art depending on the particular workpiece to be processed.

Claims 6, 9, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,115,115 to Alborante in view of USPN 5,245,155 to Pratt et al in view of USPN 4,578,554 to Coulter as applied to claims 1, 12, and 19 above, and further in view of USPN 6,072,149 to Maruyama et al.

Maruyame et al show (e.g., Front Page) well known controllable deflection of a laser beam and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides rapid processing.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-12, and 14-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/
Primary Examiner, Art Unit 3742